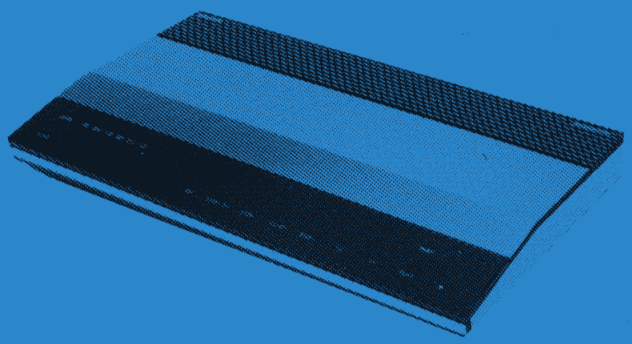
Bang & Olufsen

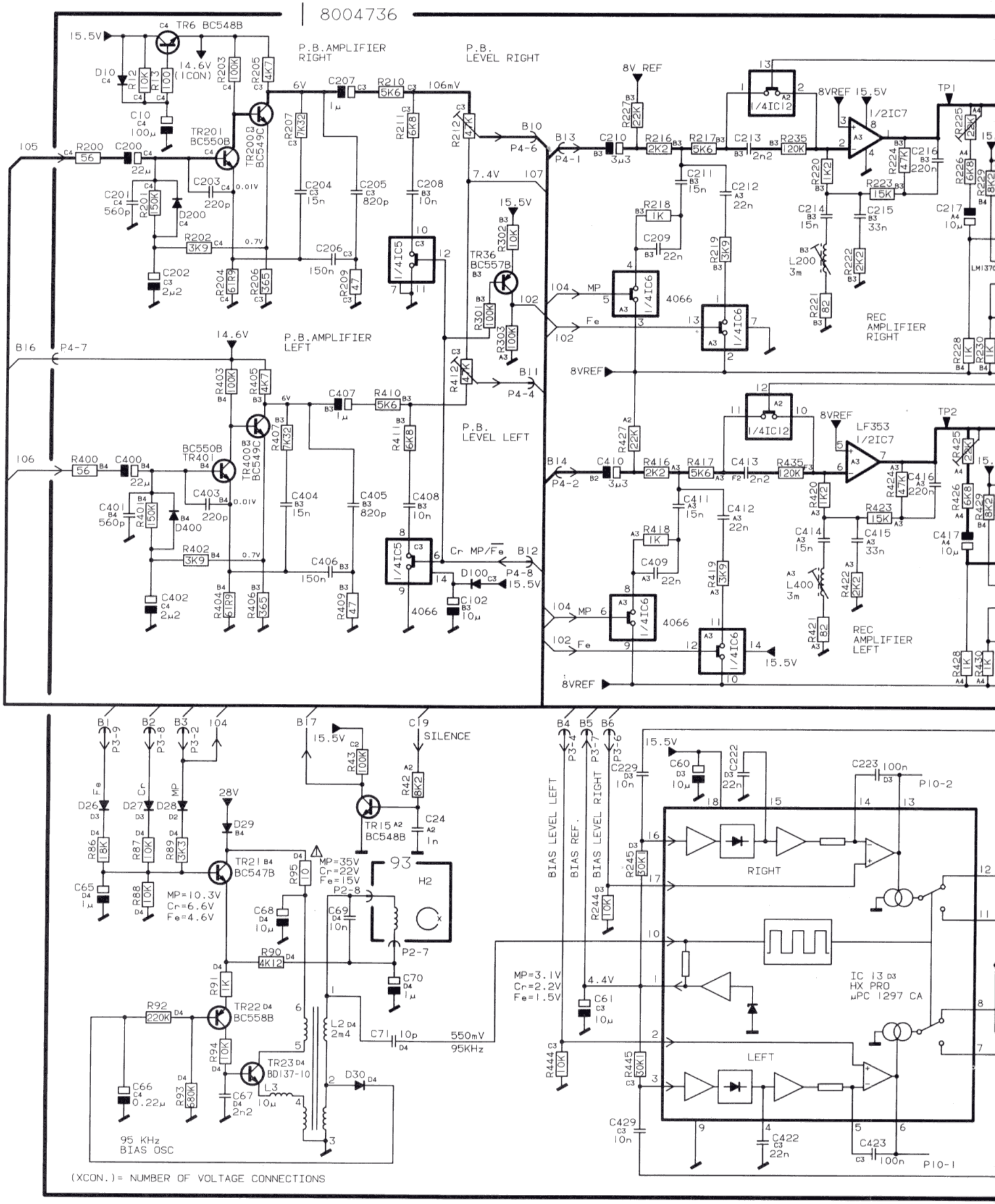


Beocord 4500

Typ 4961, 4962, 4963, 4964, 4965

SERVICEANLEITUNG
MANUEL d'ENTRETIEN

DIAGRAM A (AF and Control)



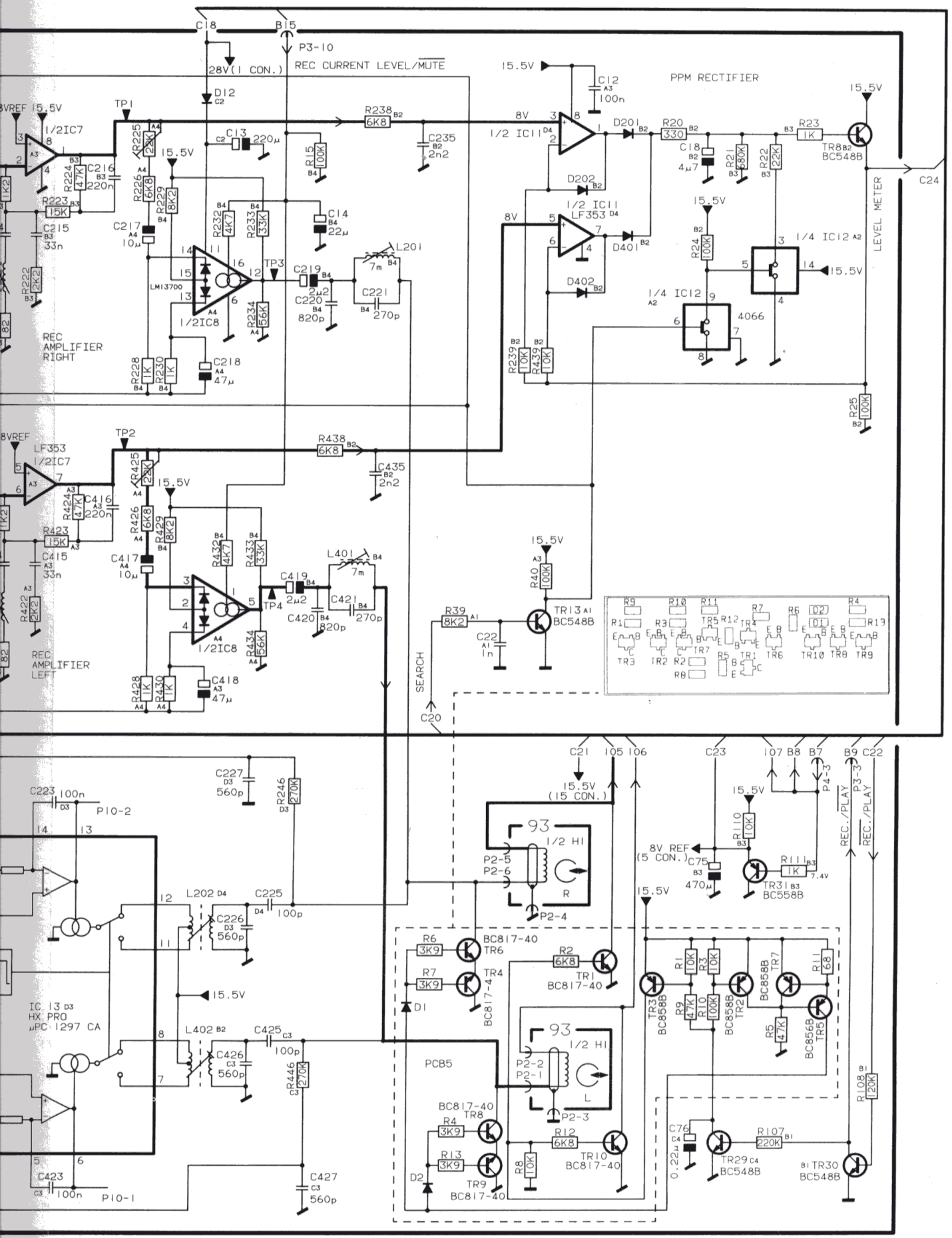
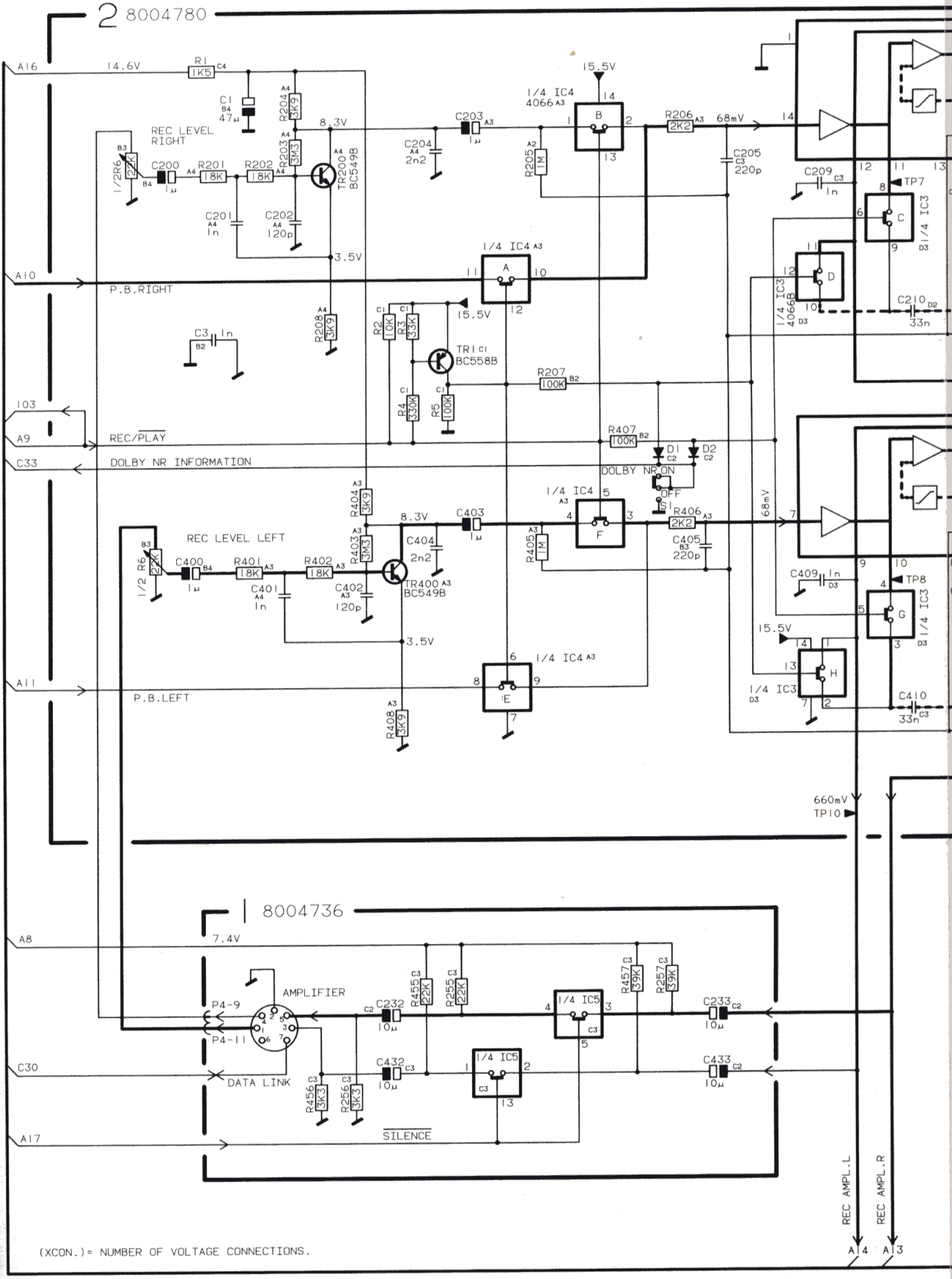

C18
B15
P3-10
28V(1 CON.)
REC CURRENT LEVEL/MUTE
D12
15.5V
C12
100n
PPM RECTIFIER
TP1
R238
6K8
8V
1/2 IC11
D201
R20
330
C18
4µ7
R21
680K
R22
22K
R23
1K
TR8
BC548B
C24
LEVEL METER
D202
1/2 IC11
LF353
D401
D402
1/4 IC12
4066
R24
100K
R25
100K
R239
10K
R439
10K
C13
220µ
R15
100K
C235
2n2
R225
22K
R226
6K8
R229
8K2
R232
4K7
R233
33K
C14
22µ
C217
10µ
C215
33n
R223
15K
R222
2K2
R224
47K
C216
220n
LM13700
1/2IC8
TP3
C219
2µ2
C220
820p
L201
7m
C221
270p
R234
56K
R228
1K
R230
1K
C218
47µ
REC
AMPLIFIER
RIGHT
8VREF
LF353
1/2IC7
TP2
R438
6K8
C435
2n2
R425
22K
R426
6K8
R429
8K2
R432
4K7
R433
33K
C417
10µ
C419
2µ2
C420
820p
L401
7m
C421
270p
TP4
R434
56K
R428
1K
R430
1K
C418
47µ
REC
AMPLIFIER
LEFT
R424
47K
C416
220n
R423
15K
C415
33n
R422
2K2
R40
100K
TR13
BC548B
R39
8K2
C22
1n
SEARCH
C20
C21
105 106
C23
107 B8 B7
B9 C22
P4-3
P3-3
REC./PLAY
REC./PLAY
15.5V
(15 CON.)
8V REF
(5 CON.)
C75
470µ
R110
10K
R111
1K
TR31
BC558B
93
1/2 HI
P2-5
P2-6
R
P2-4
L
P2-1
P2-2
P2-3
PCB5
R6
3K9
R7
3K9
TR6
TR4
BC817-40
R2
6K8
TR1
BC817-40
D1
R4
3K9
R13
3K9
TR8
TR9
BC817-40
R12
6K8
TR10
BC817-40
R8
10K
D2
R1
10K
R3
10K
R9
47K
R10
100K
R5
47K
TR3
TR2
TR5
BC858B
TR7
R11
68
R108
120K
C76
0.22µ
R107
220K
TR29
TR30
BC548B
C227
560p
R246
270K
C223
100n
P10-2
L202
C225
100p
C226
560p
IC 13
HX PRO
µPC 1297 CA
L402
C425
100p
C426
560p
R446
270K
C423
100n
P10-1
C427
560p

DIAGRAM B (Dolby NR, Bias Switch and Tape Type Logic)



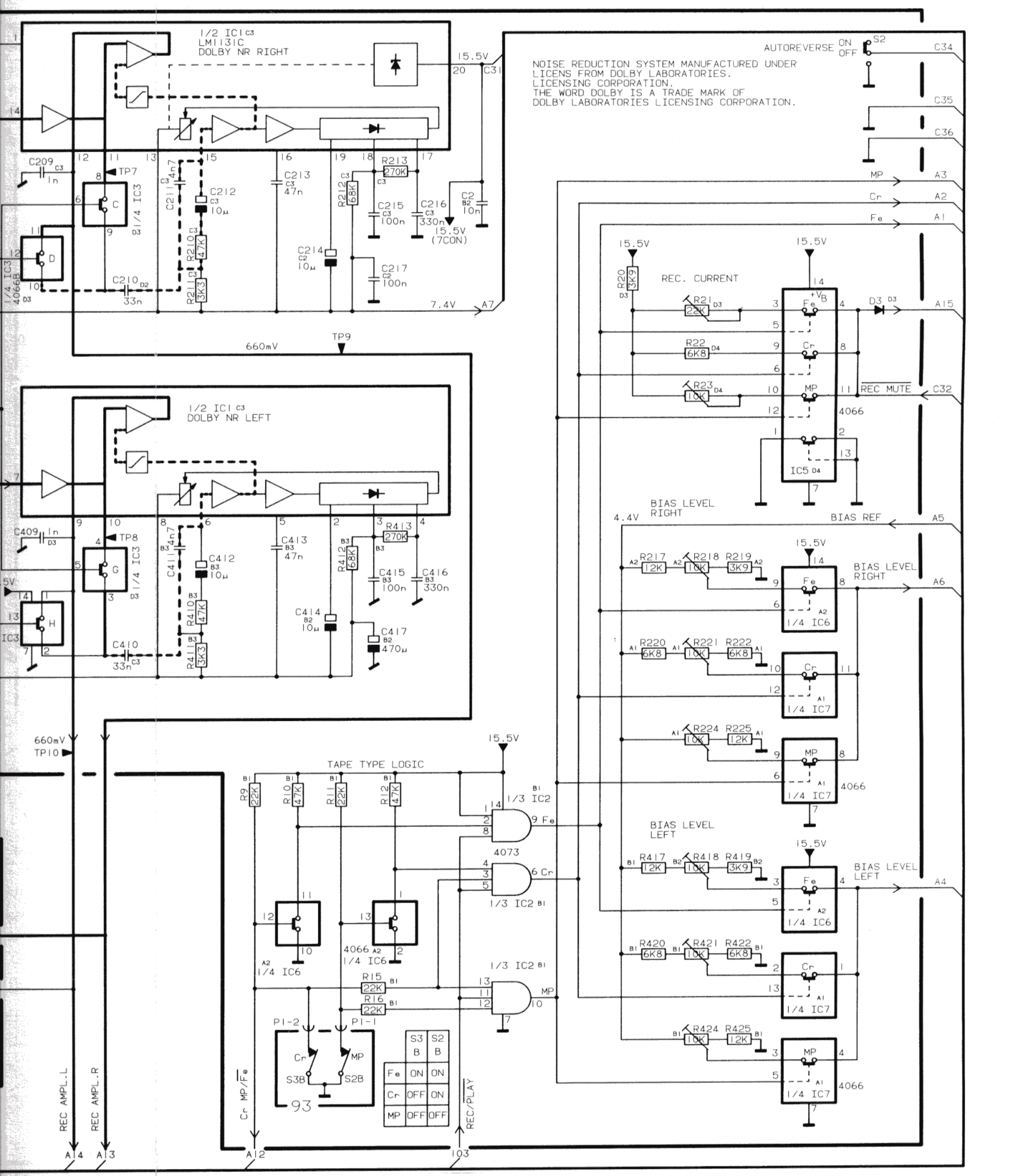
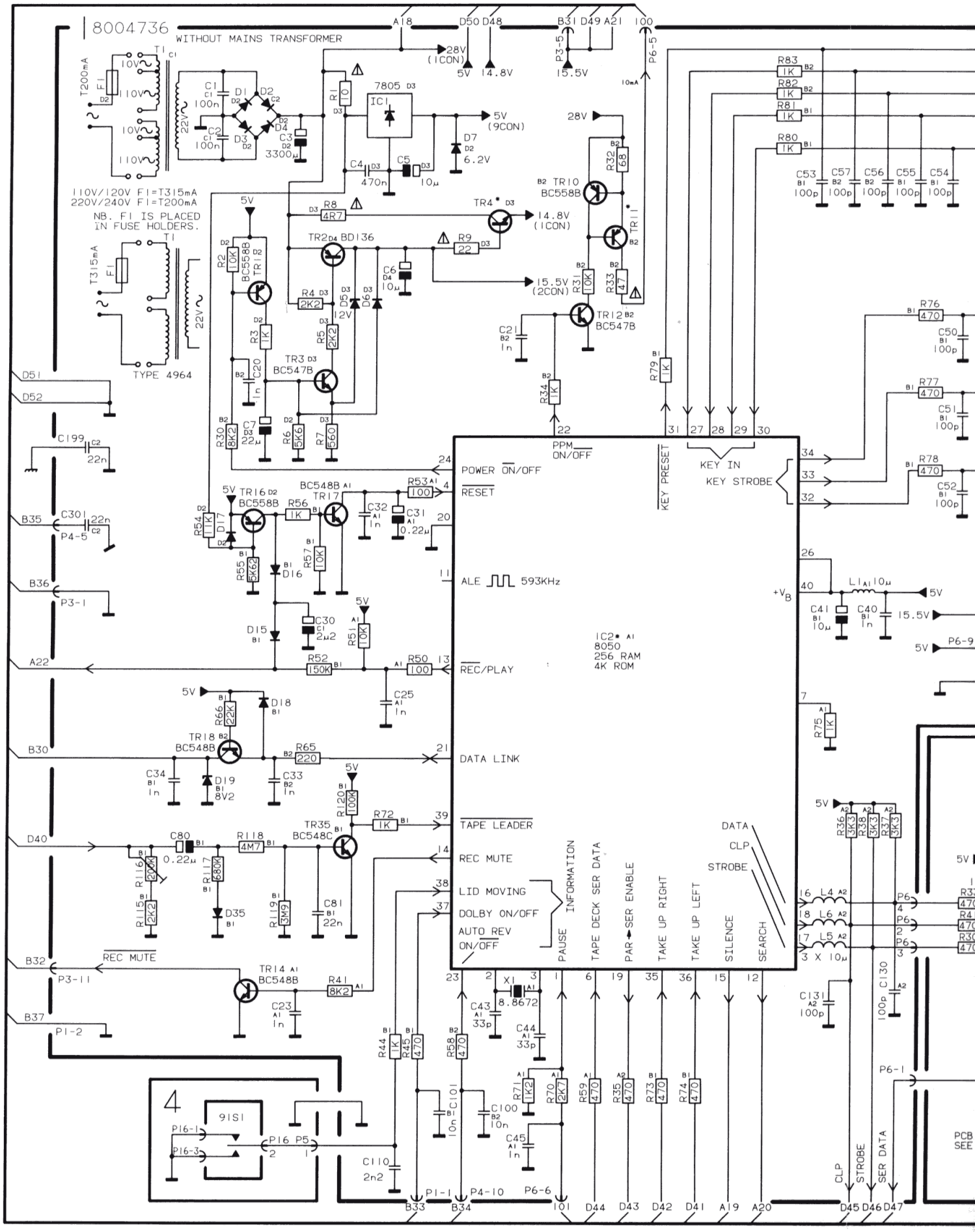

1/2 IC1 C3
LM1131C
DOLBY NR RIGHT
15.5V
C31
C209 1n
TP7
C211 4n7
C212 10µ
C213 47n
R212 68K
R213 270K
C215 100n
C216 330n
C2 10n
15.5V (7CON)
C214 10µ
C217 100n
R210 47K
R211 3K3
C210 33n
7.4V
A7
660mV
TP9
1/2 IC1 C3
DOLBY NR LEFT
C409 1n
TP8
C411 4n7
C412 10µ
C413 47n
R412 68K
R413 270K
C415 100n
C416 330n
C414 10µ
C417 470µ
R410 47K
R411 3K3
C410 33n
1/4 IC3
4066
660mV
TP10
TAPE TYPE LOGIC
R9 22K
R10 47K
R11 22K
R12 47K
1/3 IC2
4073
4066 1/4 IC6
R15 22K
R16 22K
P1-2
P1-1
S3B
S2B
Cr
MP
Fe
S3 B
S2 B
ON
OFF
REC AMPL.L
REC AMPL.R
Cr MP/Fe
REC/PLAY
A14
A13
A12
103
AUTOREVERSE ON OFF
S2
C34
C35
C36
NOISE REDUCTION SYSTEM MANUFACTURED UNDER
LICENS FROM DOLBY LABORATORIES.
LICENSING CORPORATION.
THE WORD DOLBY IS A TRADE MARK OF
DOLBY LABORATORIES LICENSING CORPORATION.
MP A3
Cr A2
Fe A1
REC. CURRENT
R20 3K9
R21 22K
R22 6K8
R23 10K
D3
REC MUTE
C32
4066
IC5
BIAS LEVEL RIGHT
4.4V
BIAS REF
A5
R217 12K
R218 10K
R219 3K9
BIAS LEVEL RIGHT
A6
1/4 IC6
R220 6K8
R221 10K
R222 6K8
1/4 IC7
R224 10K
R225 12K
BIAS LEVEL LEFT
R417 12K
R418 10K
R419 3K9
BIAS LEVEL LEFT
A4
R420 6K8
R421 10K
R422 6K8
R424 10K
R425 12K

DIAGRAM C (Control and Operation)



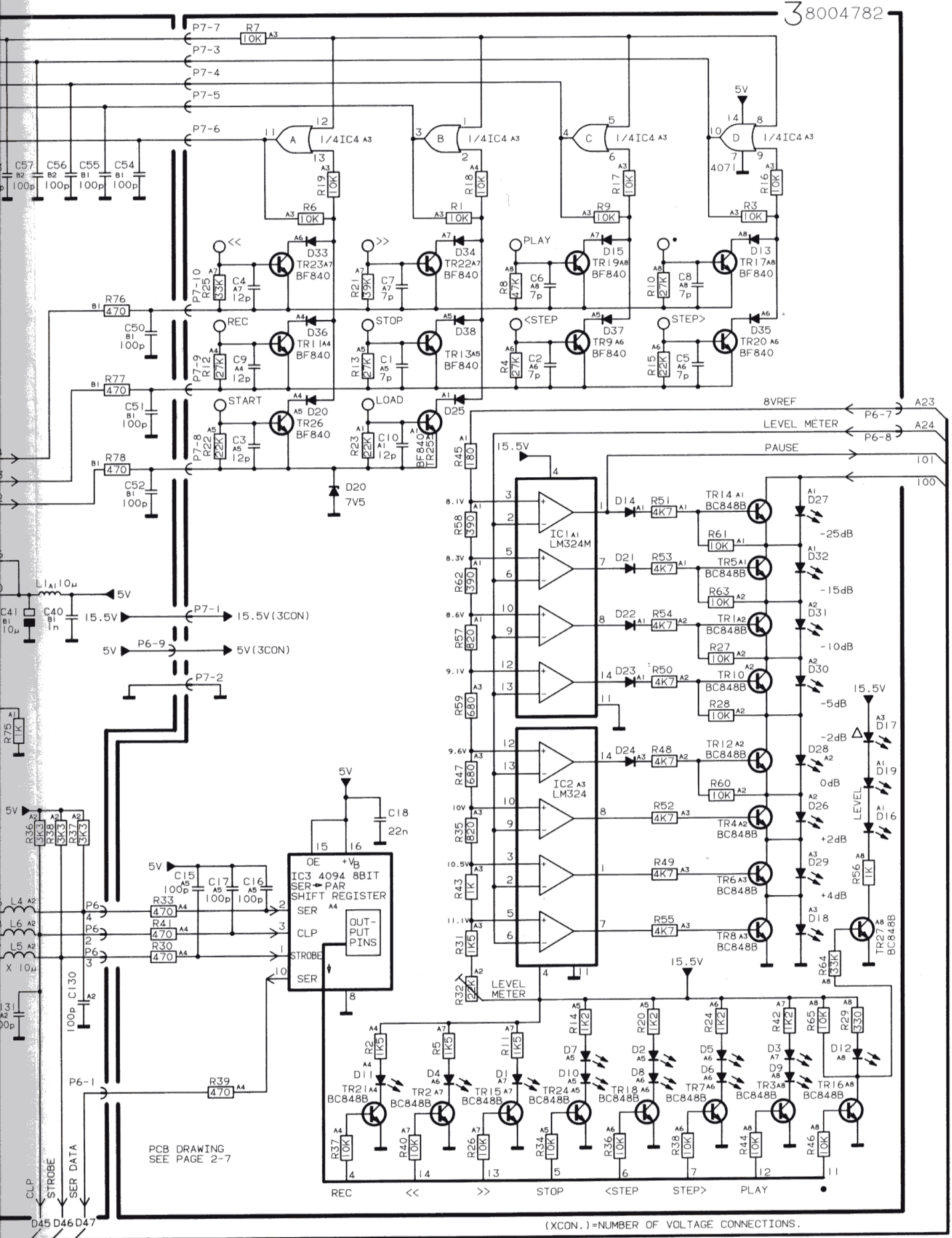

3 8004782
P7-7
P7-3
P7-4
P7-5
P7-6
R7 10K
5V
A 1/4IC4
B 1/4IC4
C 1/4IC4
D 1/4IC4
4071
C57 100p
C56 100p
C55 100p
C54 100p
R19 10K
R18 10K
R17 10K
R16 10K
R6 10K
R1 10K
R9 10K
R3 10K
<<
>>
PLAY
D33 TR23 BF840
D34 TR22 BF840
D15 TR19 BF840
D13 TR17 BF840
P7-10
R25 33K
R21 39K
R8 47K
R10 27K
C4 12p
C7 7p
C6 7p
C8 7p
R76 470
C50 100p
REC
STOP
<STEP
STEP>
D36 TR11 BF840
D38 TR13 BF840
D37 TR9 BF840
D35 TR20 BF840
P7-9
R12 27K
R13 27K
R4 27K
R15 22K
C9 12p
C1 7p
C2 7p
C5 7p
R77 470
C51 100p
START
LOAD
D20 TR26 BF840
D25 BF840 TR25
P7-8
R22 22K
R23 22K
C3 12p
C10 12p
R78 470
C52 100p
D20 7V5
8VREF
LEVEL METER
PAUSE
A23
A24
101
100
P6-7
P6-8
15.5V
R45 180
IC1 LM324M
IC2 LM324
R58 390
R62 390
R57 820
R59 680
R47 680
R35 820
R43 1K
R31 1K5
R32 22K
8.1V
8.3V
8.6V
9.1V
9.6V
10V
10.5V
11.1V
D14 R51 4K7 TR14 BC848B R61 10K D27 -25dB
D21 R53 4K7 TR5 BC848B R63 10K D32 -15dB
D22 R54 4K7 TR1 BC848B R27 10K D31 -10dB
D23 R50 4K7 TR10 BC848B R28 10K D30 -5dB
D24 R48 4K7 TR12 BC848B R60 10K D28 0dB
R52 4K7 TR4 BC848B D26 +2dB
R49 4K7 TR6 BC848B D29 +4dB
R55 4K7 TR8 BC848B D18
D17
D19
D16
LEVEL
R56 1K
R64 33K
TR27 BC848B
L1 10µ
C41 10µ
C40 1n
P7-1
15.5V(3CON)
P6-9
5V(3CON)
P7-2
R75 1K
R36 3K3
R38 3K3
R37 3K3
C18 22n
IC3 4094 8BIT SER→PAR SHIFT REGISTER
OE
+VB
SER
CLP
STROBE
OUT-PUT PINS
C15 100p
C17 100p
C16 100p
R33 470
R41 470
R30 470
L4
L6
L5
X 10µ
C130 100p
R39 470
P6-1
R2 1K5
R5 1K5
R11 1K5
R14 1K2
R20 1K2
R24 1K2
R42 1K2
R65 10K
R29 330
D11
D4
D1
D7
D10
D2
D8
D5
D6
D3
D9
D12
TR21 BC848B
TR2 BC848B
TR15 BC848B
TR24 BC848B
TR18 BC848B
TR7 BC848B
TR3 BC848B
TR16 BC848B
R37 10K
R40 10K
R26 10K
R34 10K
R36 10K
R38 10K
R44 10K
R46 10K
REC
<<
>>
STOP
<STEP
STEP>
PLAY
PCB DRAWING SEE PAGE 2-7
CLP
STROBE
SER DATA
D45 D46 D47
(XCON.)=NUMBER OF VOLTAGE CONNECTIONS.

DIAGRAM C (Tape Deck Control)